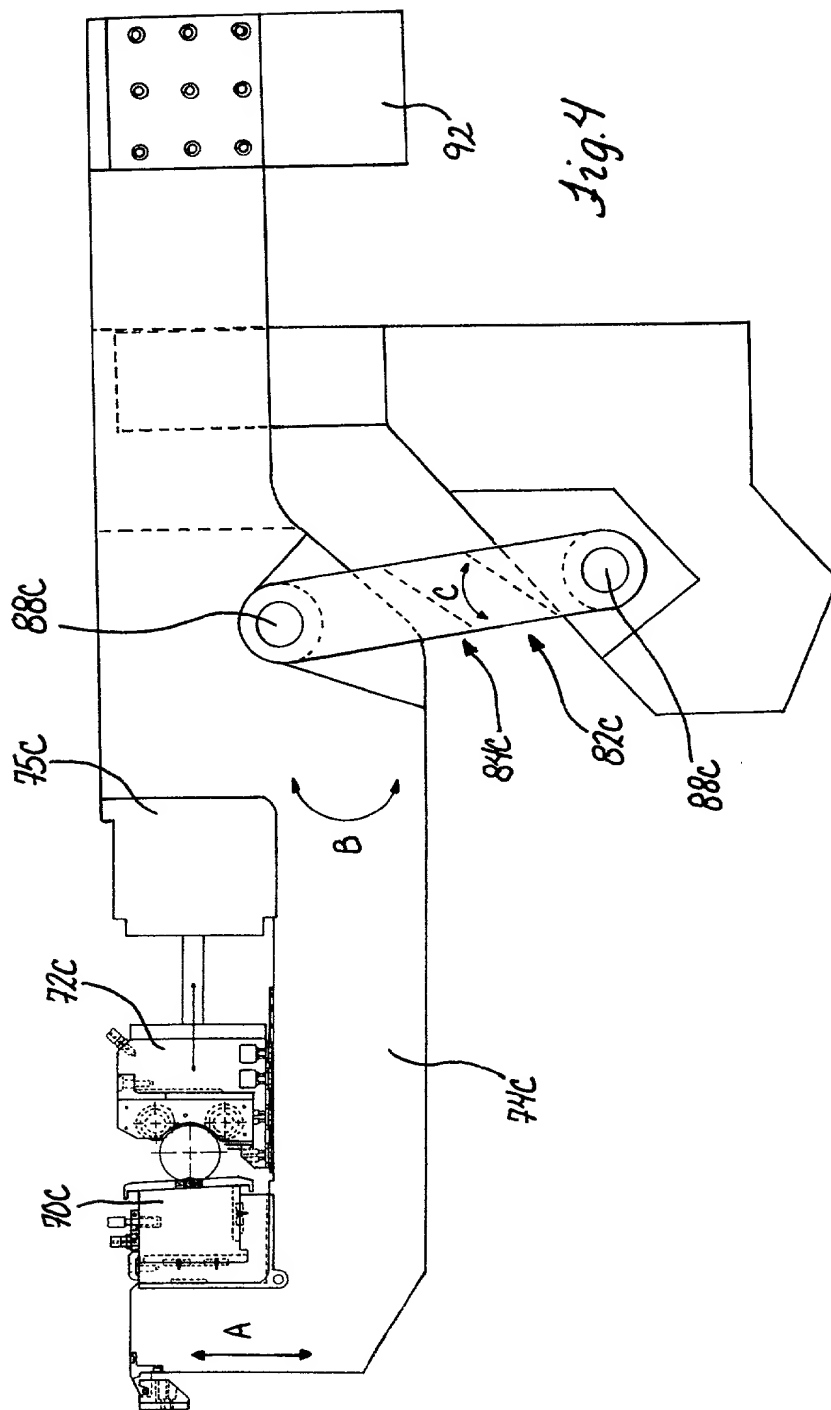


Fig. 3



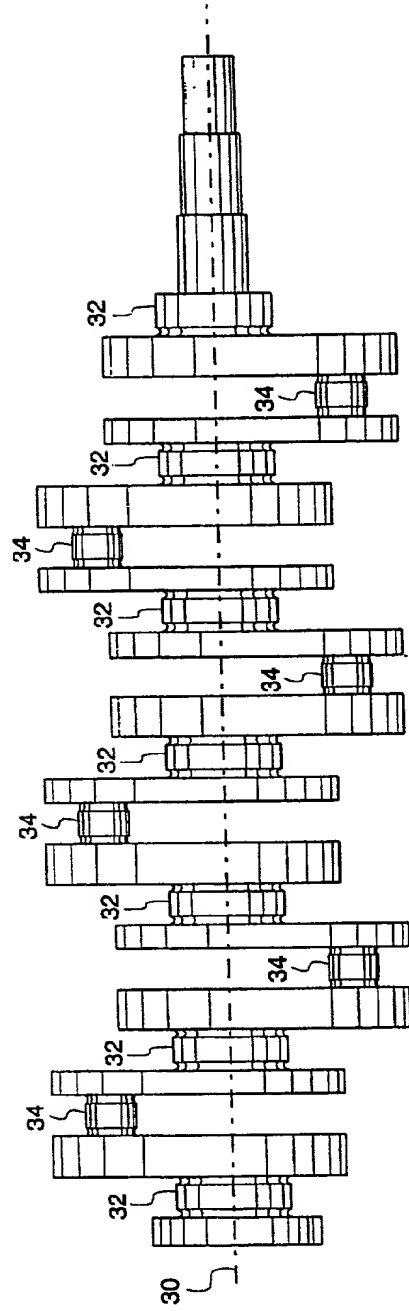
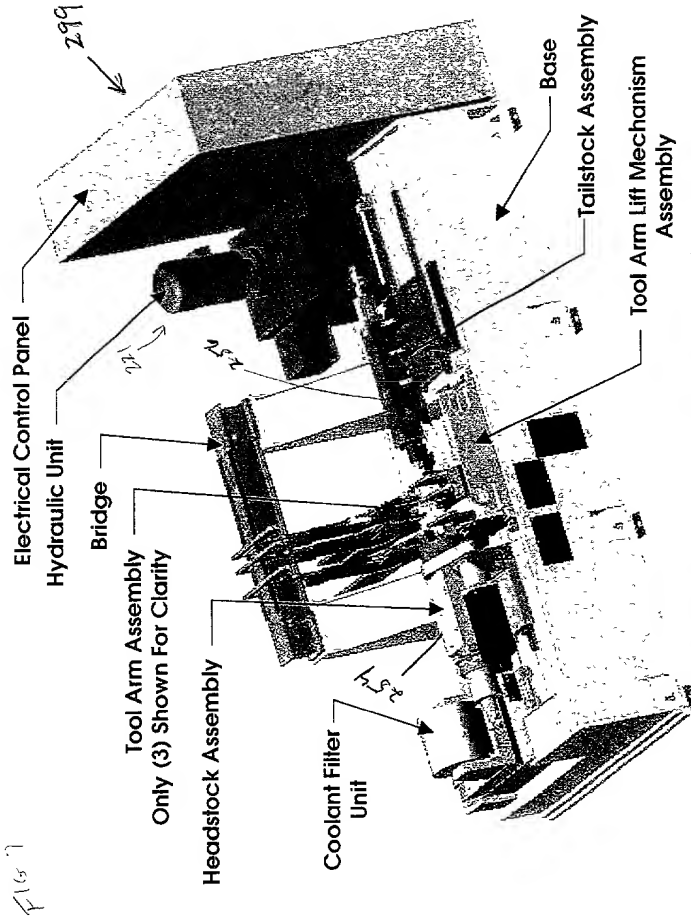


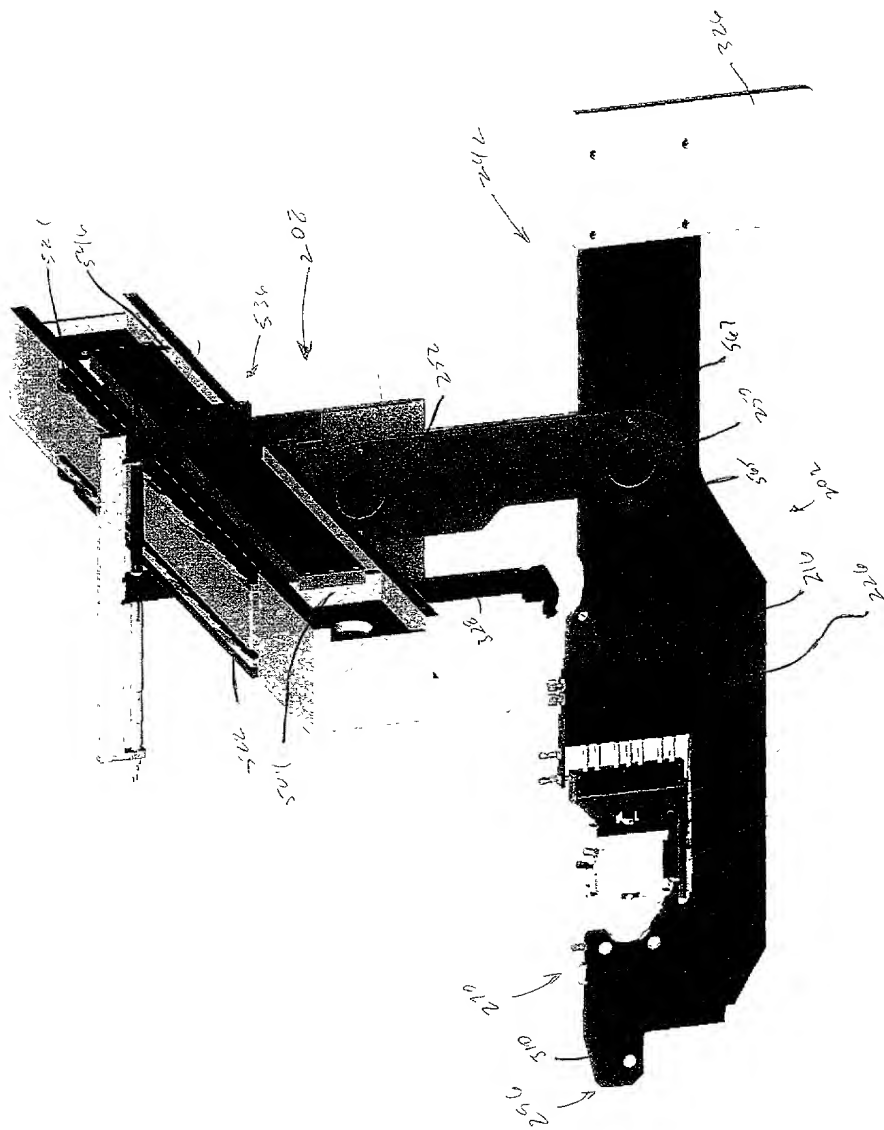
Fig. 5A



Machine Architecture



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R & D ACTIVITIES

- Initial Design to Meet Goals Using:
 - ALL DESIGN AND DETAIL IN 3D (SOLIDWORKS) FOR INTERFERENCE, FEA MODELS AND SIMULATIONS

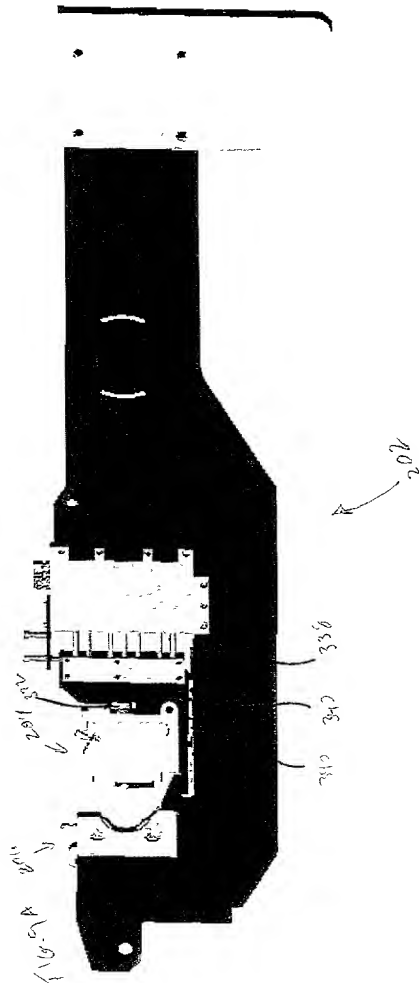


FIG. 1

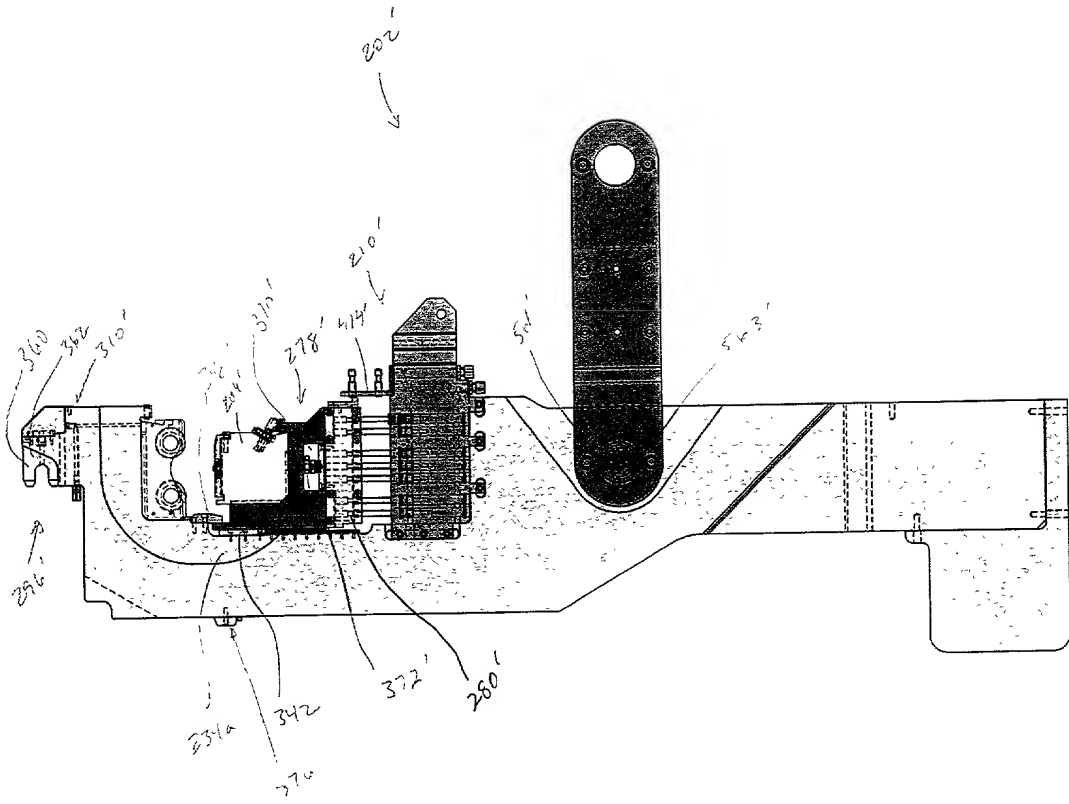
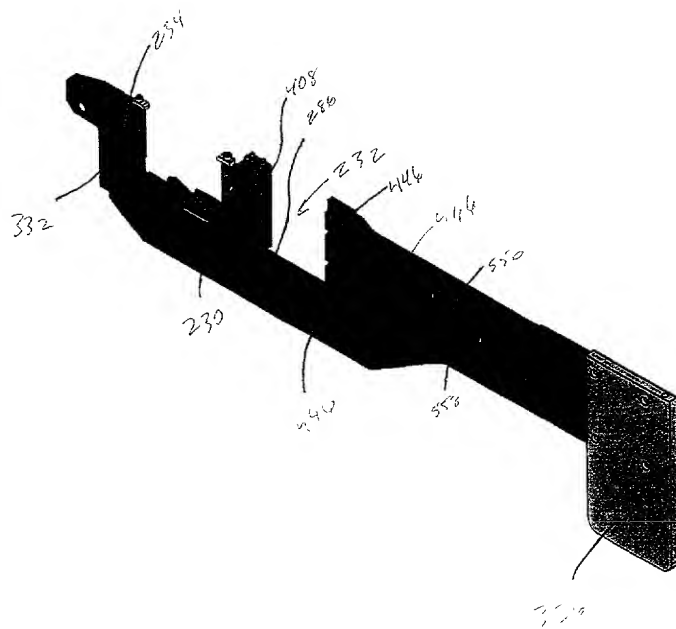
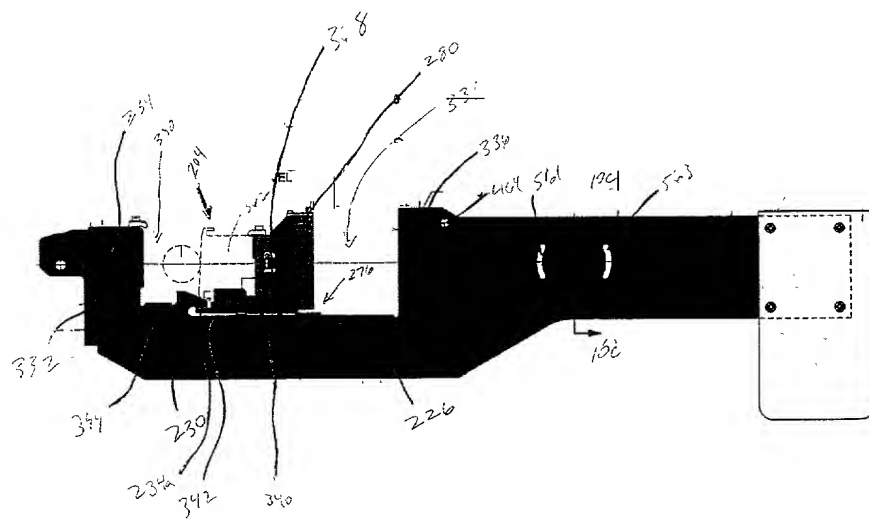


FIG. 2

FIG. 7



| SPECIALTY GROUPS | |
|------------------------------|-----|
| 1. General Practice | 100 |
| 2. Internal Medicine | 100 |
| 3. Pediatrics | 100 |
| 4. Obstetrics and Gynecology | 100 |
| 5. Psychiatry | 100 |
| 6. Radiology | 100 |
| 7. Pathology | 100 |
| 8. Dermatology | 100 |
| 9. Ophthalmology | 100 |
| 10. Otolaryngology | 100 |
| 11. Urology | 100 |
| 12. Cardiology | 100 |
| 13. Neurology | 100 |
| 14. Orthopedics | 100 |
| 15. Plastic Surgery | 100 |
| 16. Vascular Medicine | 100 |
| 17. Infectious Disease | 100 |
| 18. Hematology | 100 |
| 19. Nephrology | 100 |
| 20. Endocrinology | 100 |
| 21. Rheumatology | 100 |
| 22. Pulmonology | 100 |
| 23. Gastroenterology | 100 |
| 24. Hepatology | 100 |
| 25. Oncology | 100 |
| 26. Hematology | 100 |
| 27. Immunology | 100 |
| 28. Allergy | 100 |
| 29. Dermatology | 100 |
| 30. Ophthalmology | 100 |
| 31. Otolaryngology | 100 |
| 32. Urology | 100 |
| 33. Cardiology | 100 |
| 34. Neurology | 100 |
| 35. Orthopedics | 100 |
| 36. Plastic Surgery | 100 |
| 37. Vascular Medicine | 100 |
| 38. Infectious Disease | 100 |
| 39. Hematology | 100 |
| 40. Nephrology | 100 |
| 41. Endocrinology | 100 |
| 42. Rheumatology | 100 |
| 43. Pulmonology | 100 |
| 44. Gastroenterology | 100 |
| 45. Hepatology | 100 |
| 46. Oncology | 100 |
| 47. Hematology | 100 |
| 48. Immunology | 100 |
| 49. Allergy | 100 |
| 50. Dermatology | 100 |
| 51. Ophthalmology | 100 |
| 52. Otolaryngology | 100 |
| 53. Urology | 100 |
| 54. Cardiology | 100 |
| 55. Neurology | 100 |
| 56. Orthopedics | 100 |
| 57. Plastic Surgery | 100 |
| 58. Vascular Medicine | 100 |
| 59. Infectious Disease | 100 |
| 60. Hematology | 100 |
| 61. Nephrology | 100 |
| 62. Endocrinology | 100 |
| 63. Rheumatology | 100 |
| 64. Pulmonology | 100 |
| 65. Gastroenterology | 100 |
| 66. Hepatology | 100 |
| 67. Oncology | 100 |
| 68. Hematology | 100 |
| 69. Immunology | 100 |
| 70. Allergy | 100 |
| 71. Dermatology | 100 |
| 72. Ophthalmology | 100 |
| 73. Otolaryngology | 100 |
| 74. Urology | 100 |
| 75. Cardiology | 100 |
| 76. Neurology | 100 |
| 77. Orthopedics | 100 |
| 78. Plastic Surgery | 100 |
| 79. Vascular Medicine | 100 |
| 80. Infectious Disease | 100 |
| 81. Hematology | 100 |
| 82. Nephrology | 100 |
| 83. Endocrinology | 100 |
| 84. Rheumatology | 100 |
| 85. Pulmonology | 100 |
| 86. Gastroenterology | 100 |
| 87. Hepatology | 100 |
| 88. Oncology | 100 |
| 89. Hematology | 100 |
| 90. Immunology | 100 |
| 91. Allergy | 100 |
| 92. Dermatology | 100 |
| 93. Ophthalmology | 100 |
| 94. Otolaryngology | 100 |
| 95. Urology | 100 |
| 96. Cardiology | 100 |
| 97. Neurology | 100 |
| 98. Orthopedics | 100 |
| 99. Plastic Surgery | 100 |
| 100. Vascular Medicine | 100 |



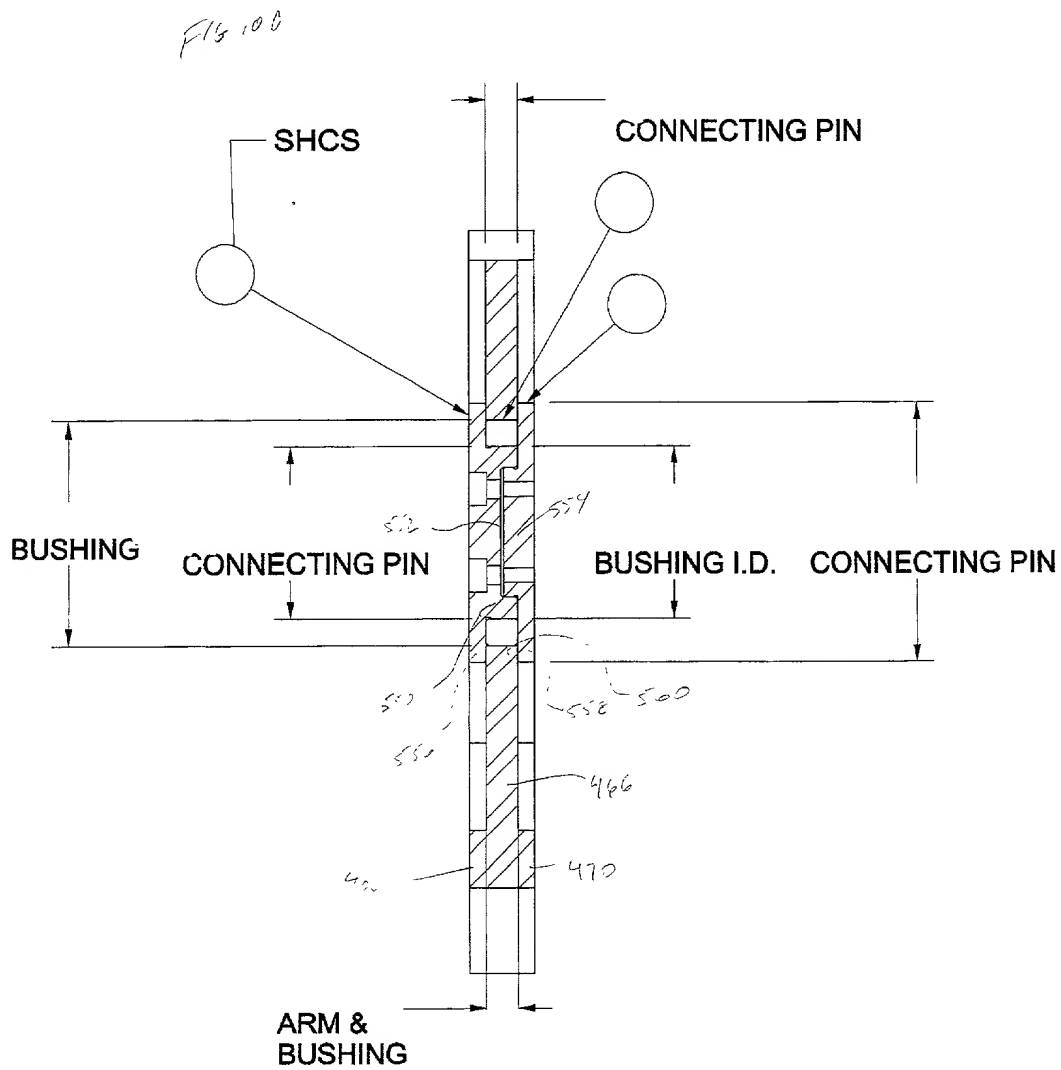


FIG. 10D



| Variable | Mean | SD | Min | Max |
|---------------------|-------------|------------|-----|-----|
| Age | 38.5 | 10.5 | 25 | 55 |
| Gender | Male | Female | | |
| Marital status | Married | Single | | |
| Education | High school | College | | |
| Occupation | Manager | Worker | | |
| Income | Low | High | | |
| Health status | Good | Poor | | |
| Smoking status | Smoker | Non-smoker | | |
| Alcohol consumption | Regular | Occasional | | |
| Exercise frequency | High | Low | | |
| Stress level | High | Low | | |
| Sleep quality | Good | Poor | | |
| Dietary habits | Healthy | Unhealthy | | |
| Family size | Small | Large | | |
| Work-life balance | Good | Poor | | |
| Life satisfaction | High | Low | | |
| Overall well-being | Good | Poor | | |

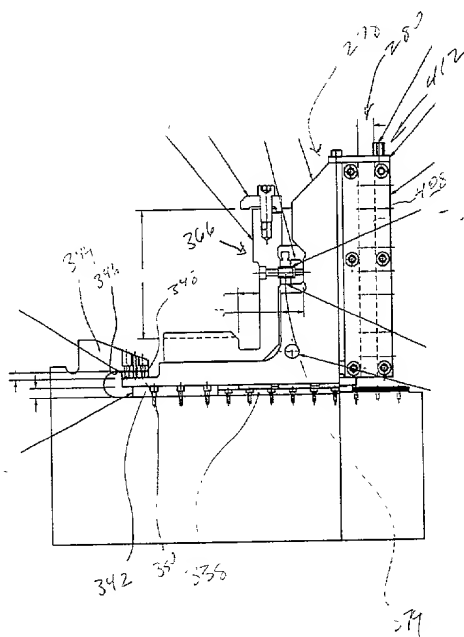
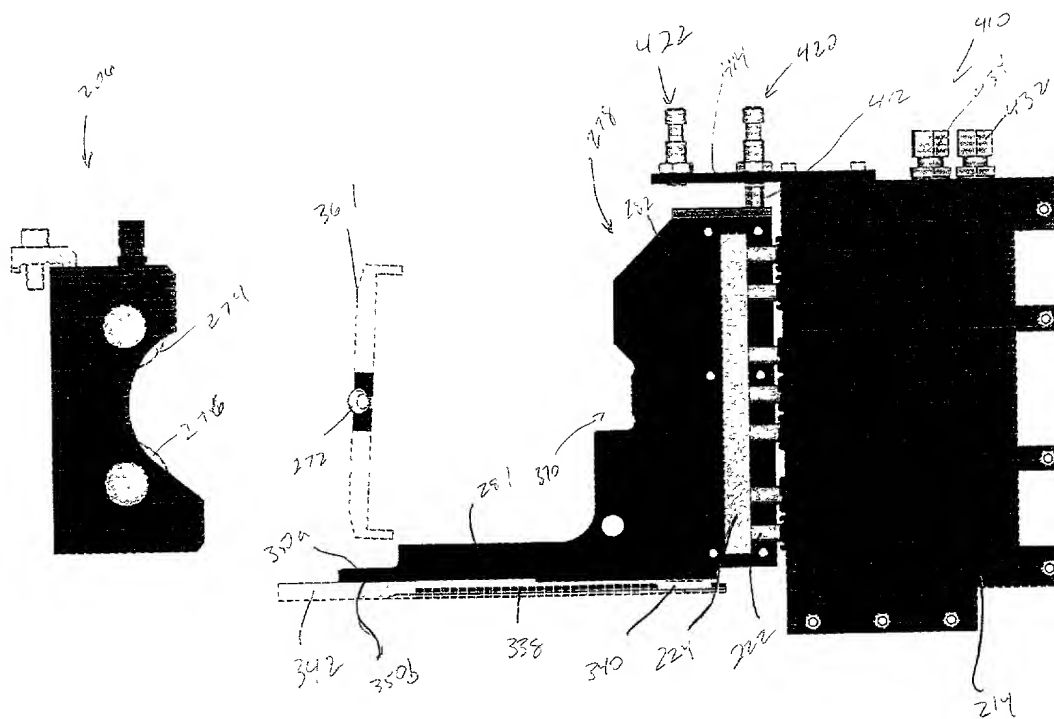


FIG 11



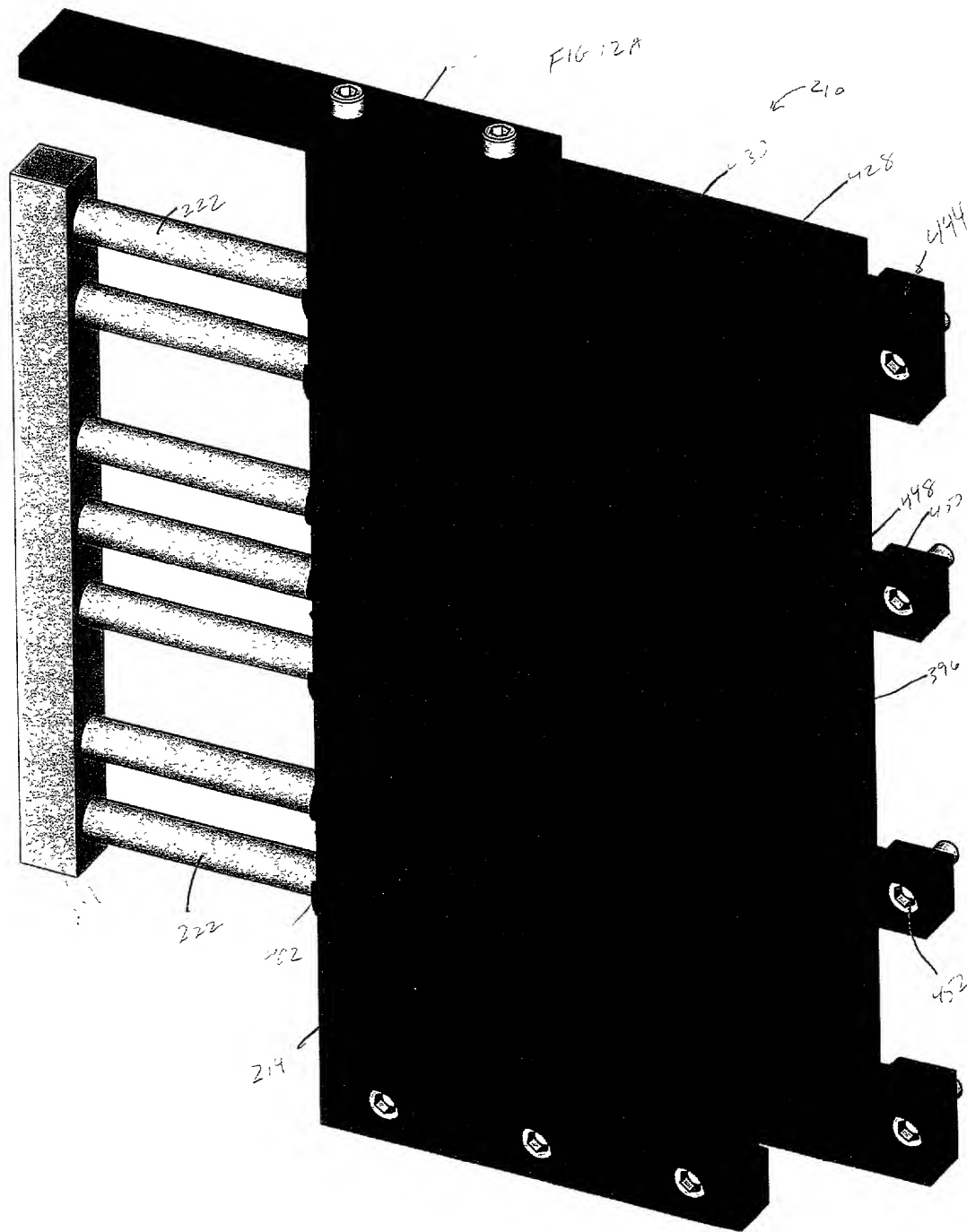
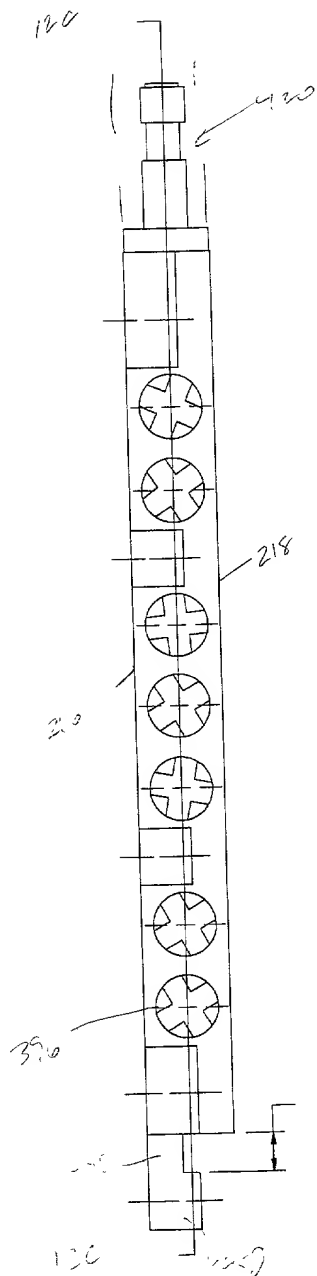
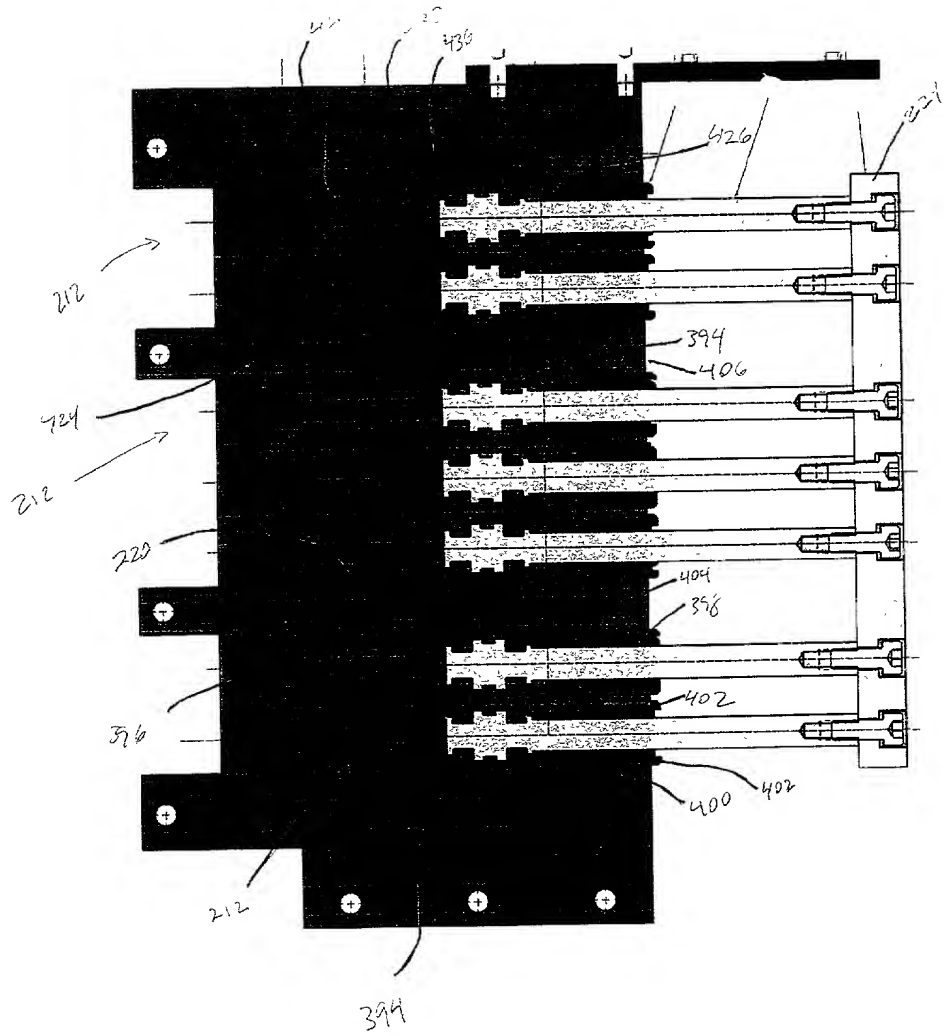


FIG. 123



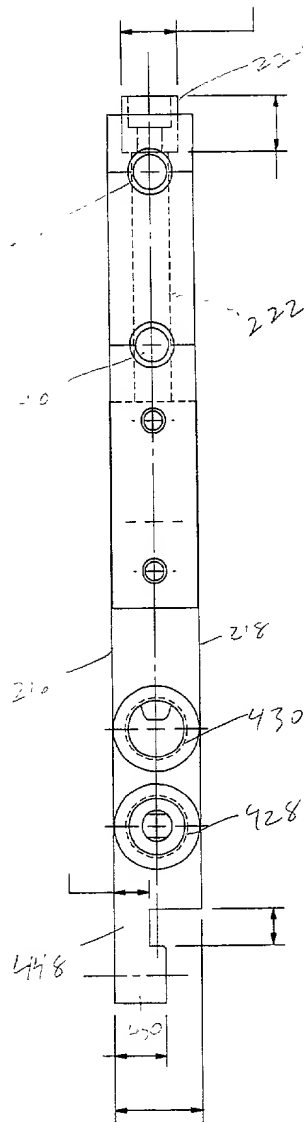
0990183 113101

FIG. 26



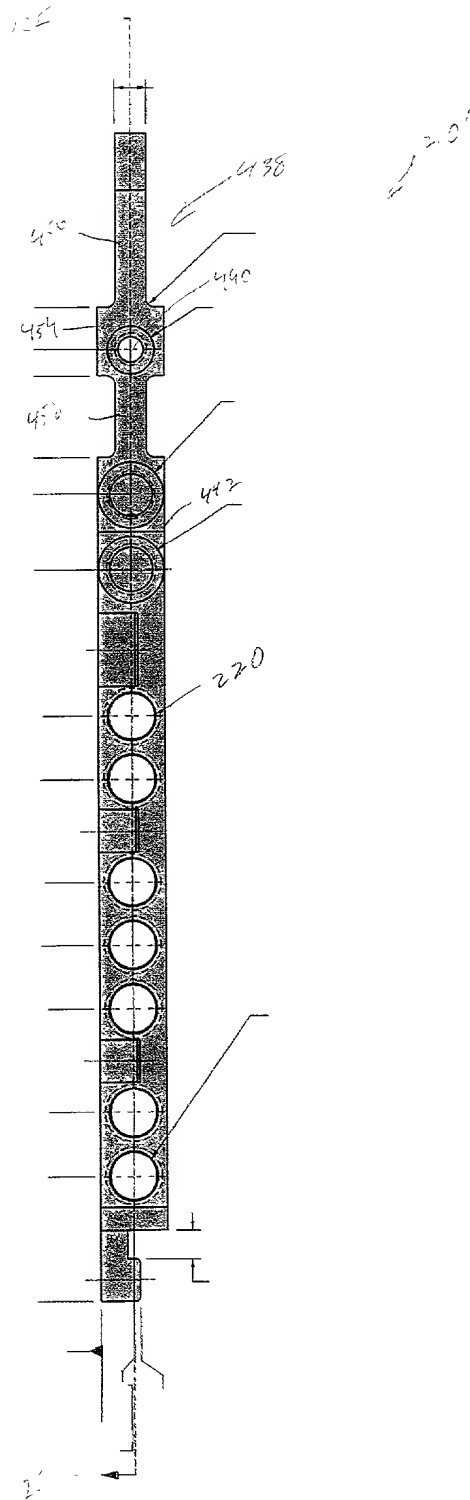
0990133-112101

FIG. 20



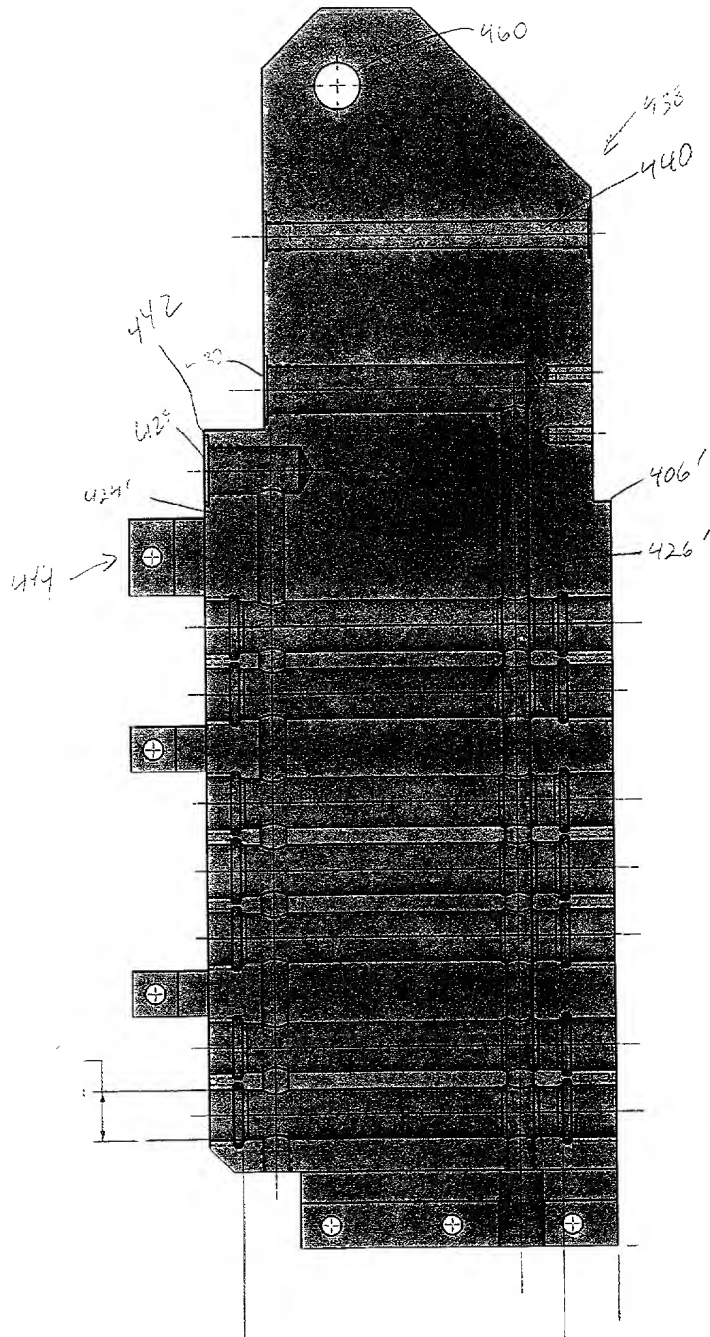
TOP VIEW OF 28T06660

125



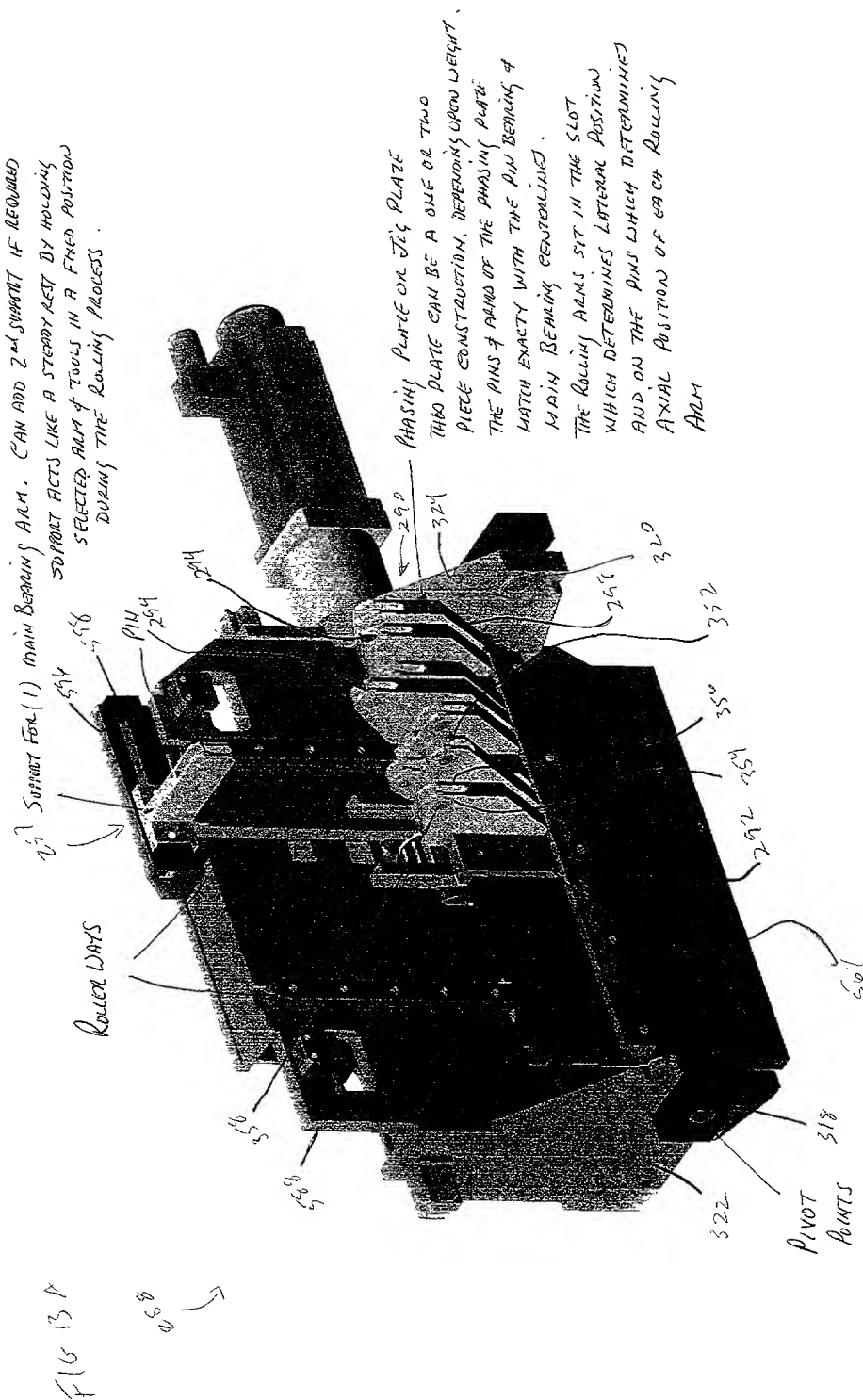
099013-11401

115
124



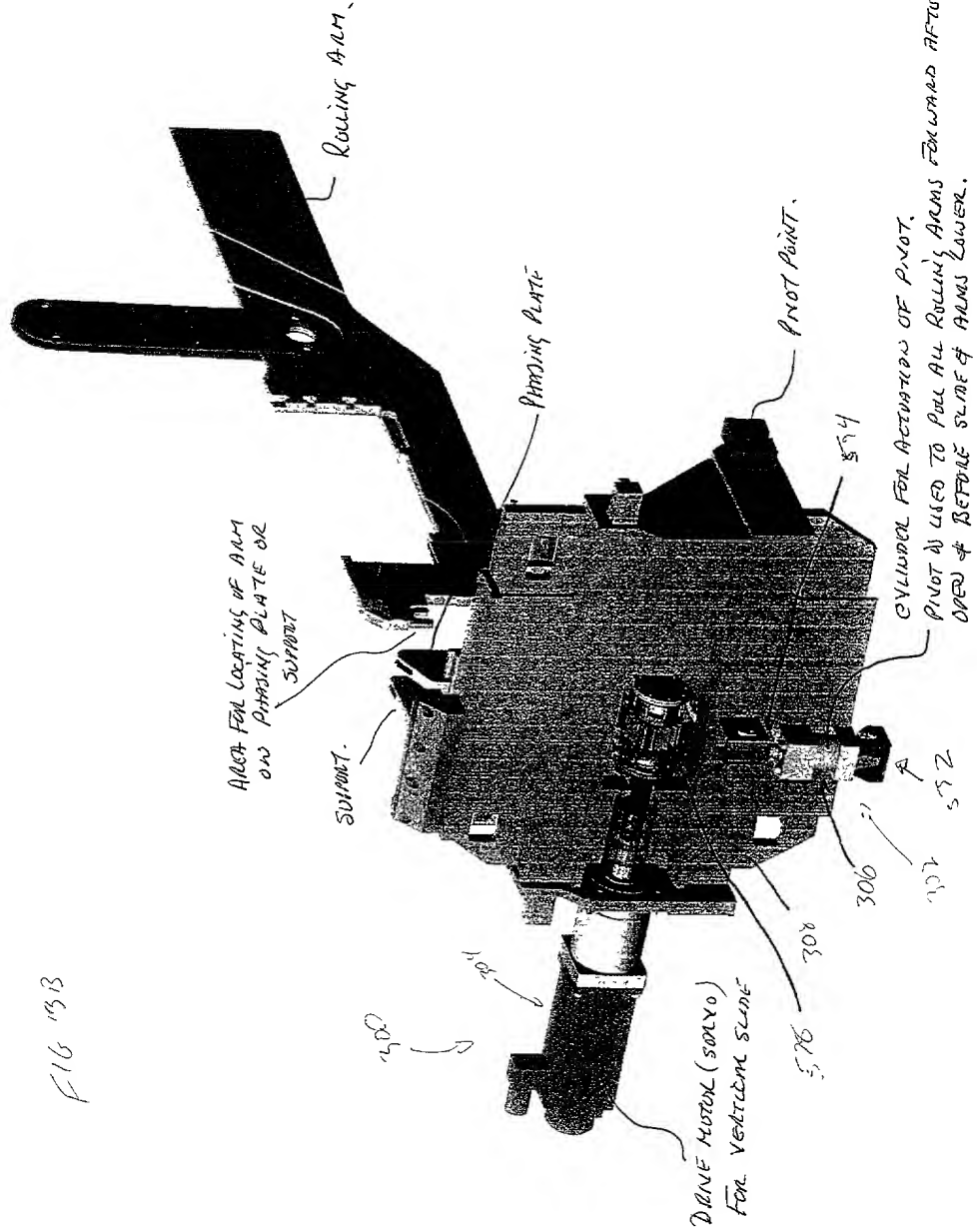
ICMS. DEEP FILLET ROLLING MACHINE

Rolling Arm Lift Mechanism



1 CMDS DEEP FLIGHT ROLLING MACHINE

Rolling Arm Lift Mechanism & Arm



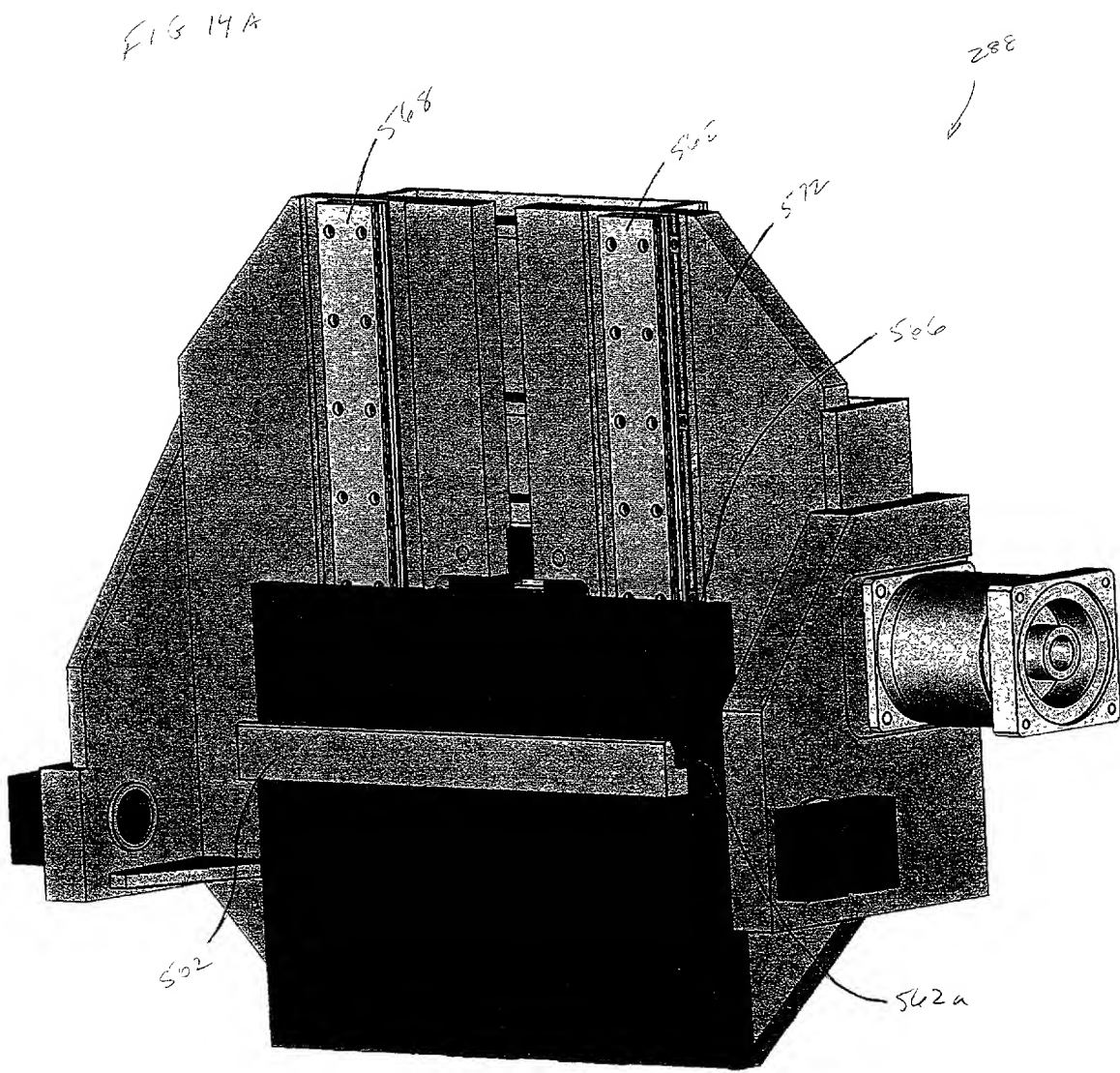
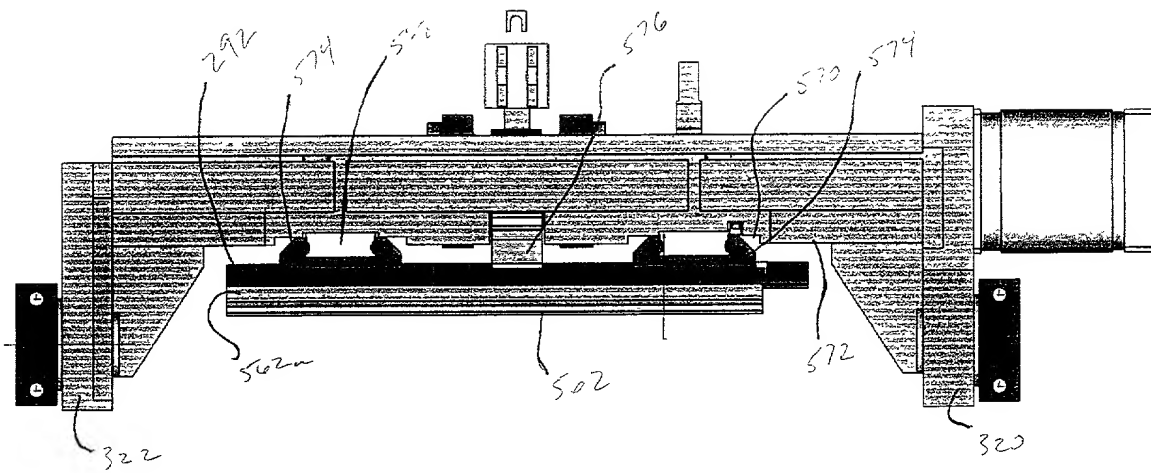


FIG 14B



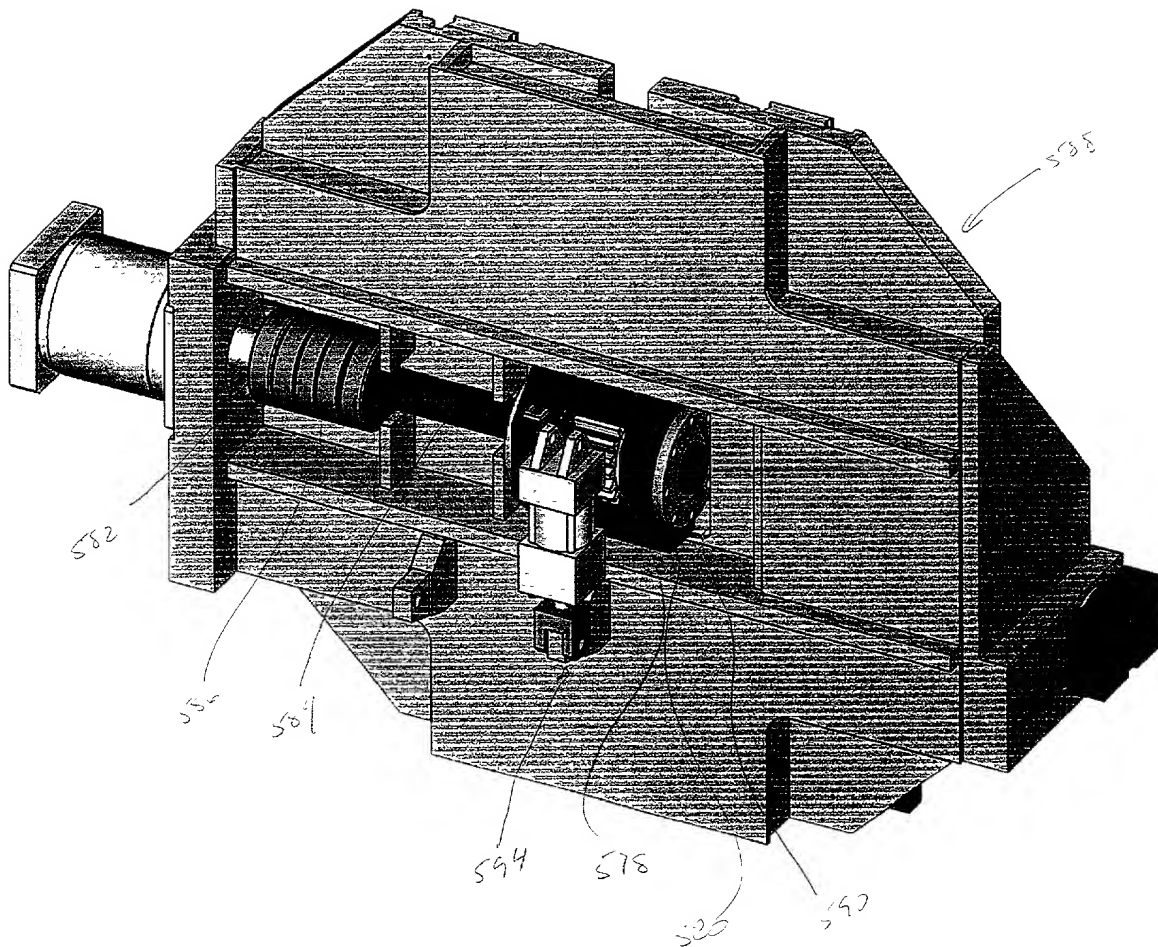
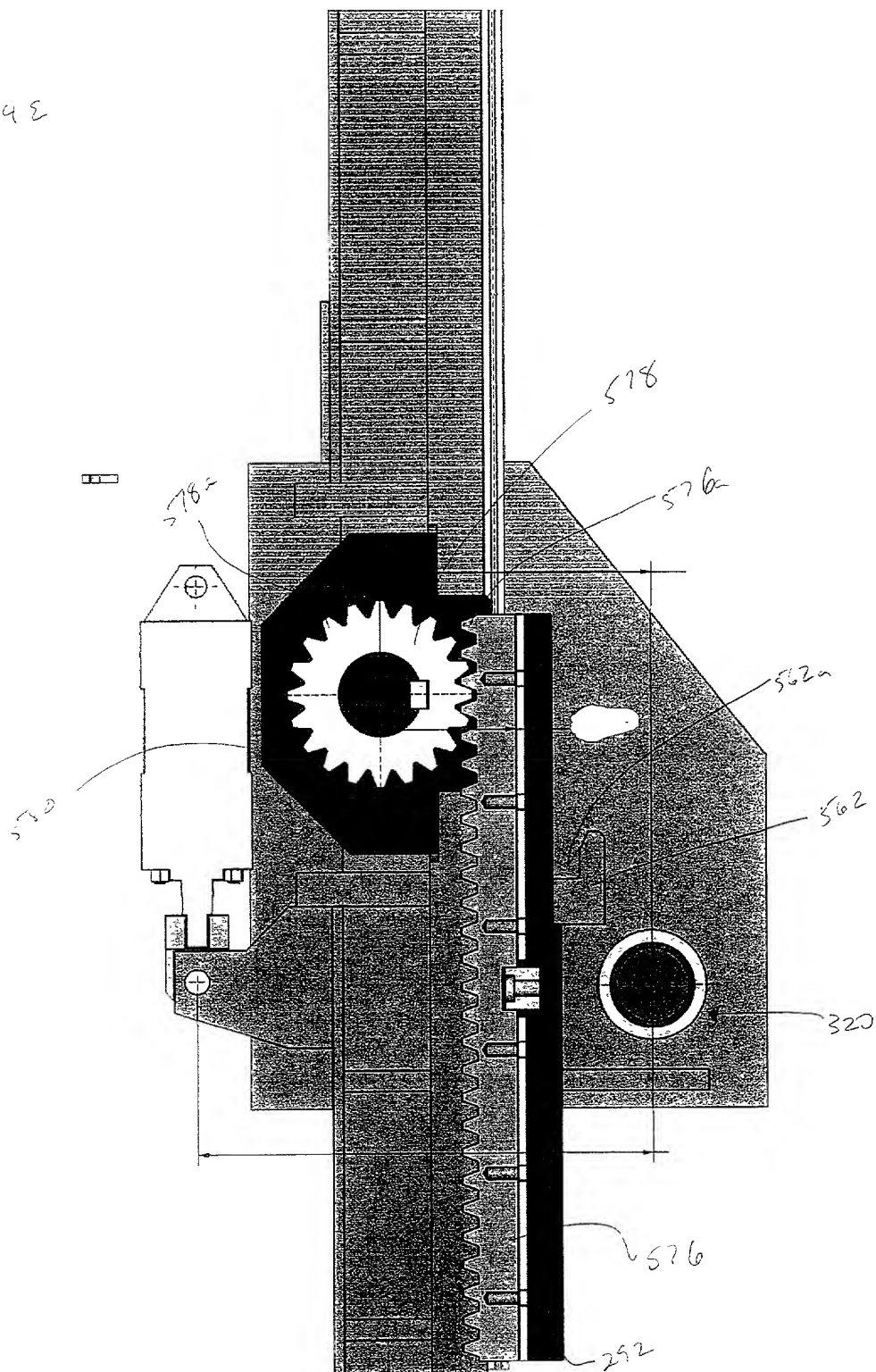


FIG 14E



SECTION B-B

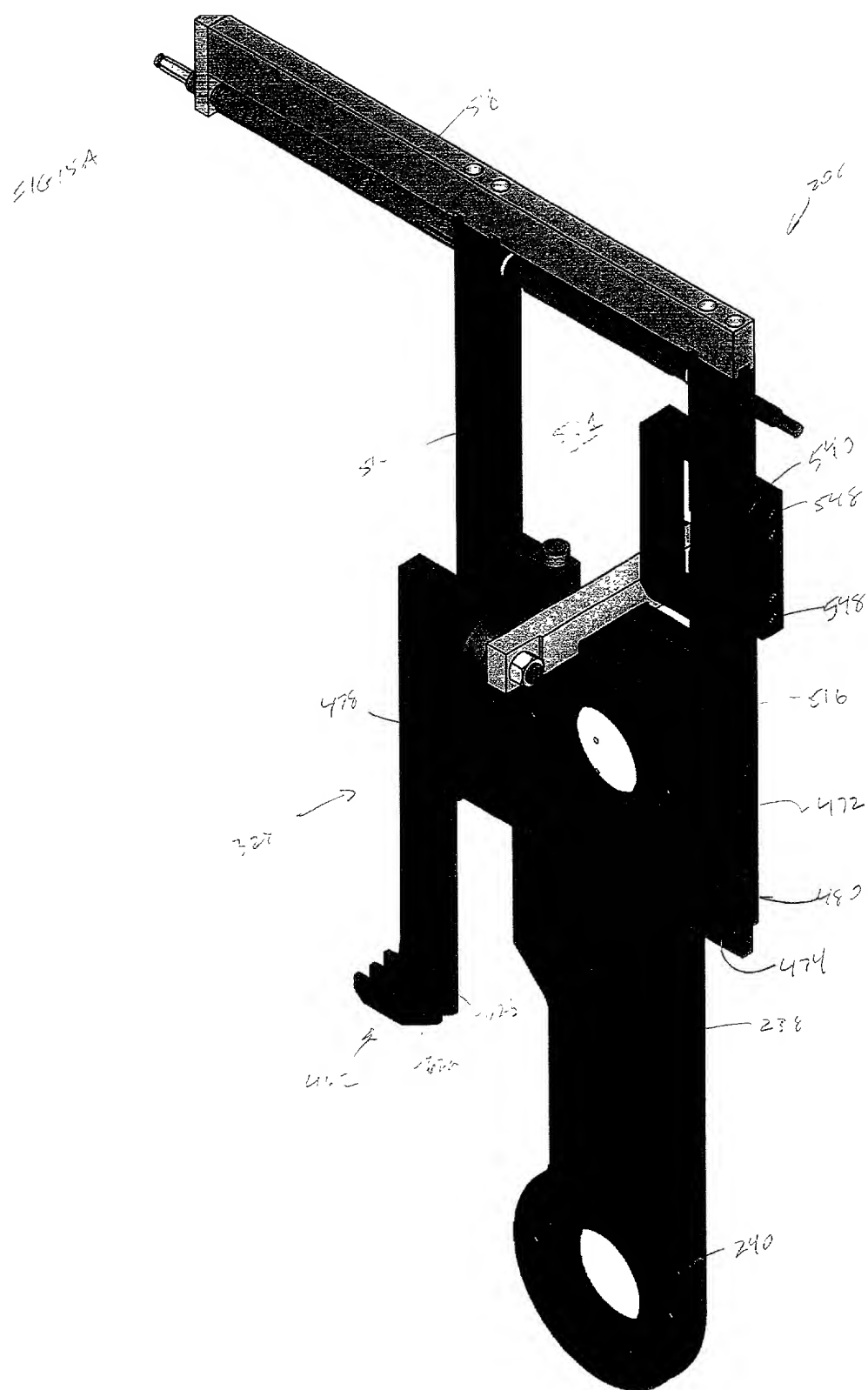
[illegible]

FIG. 153

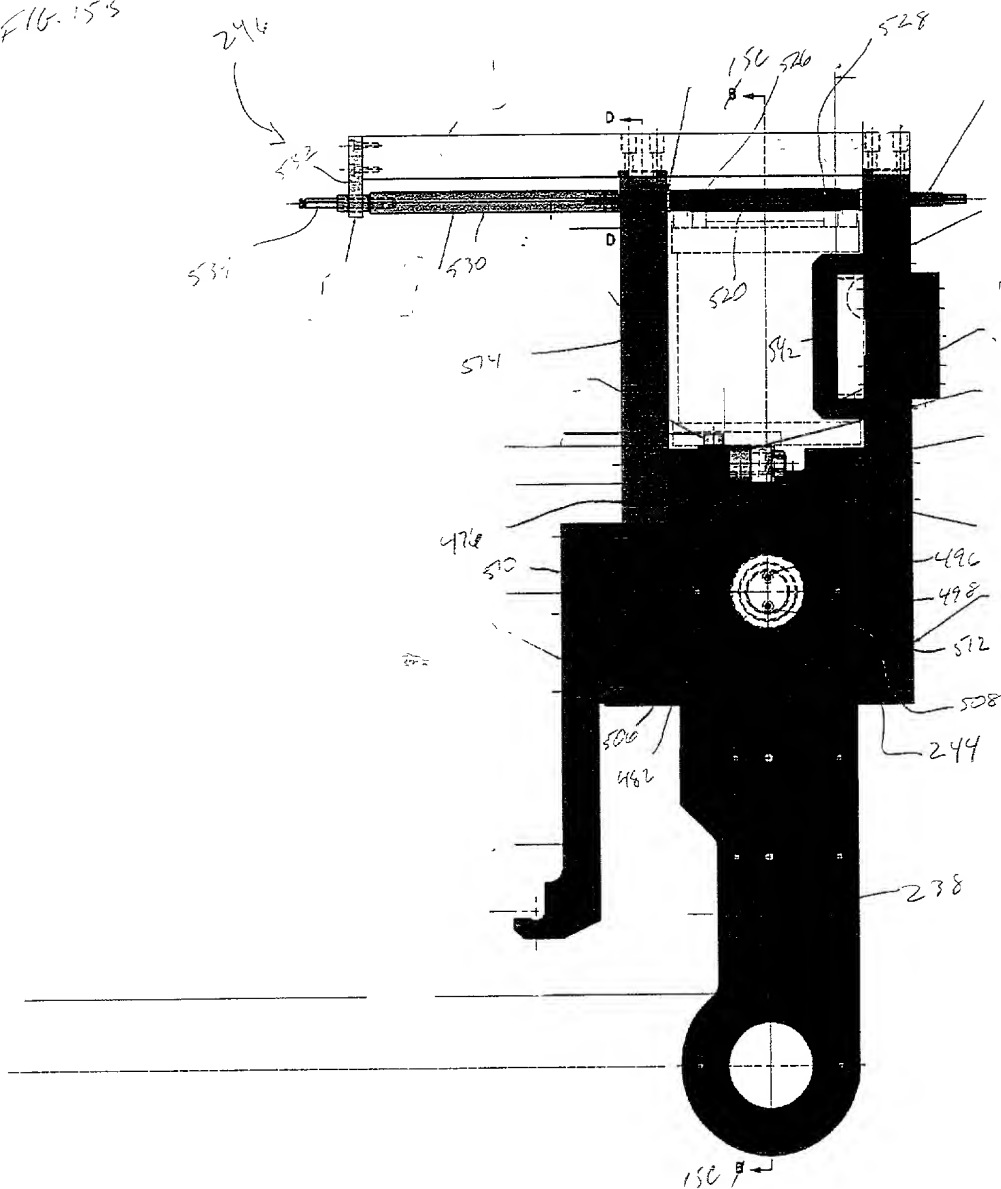
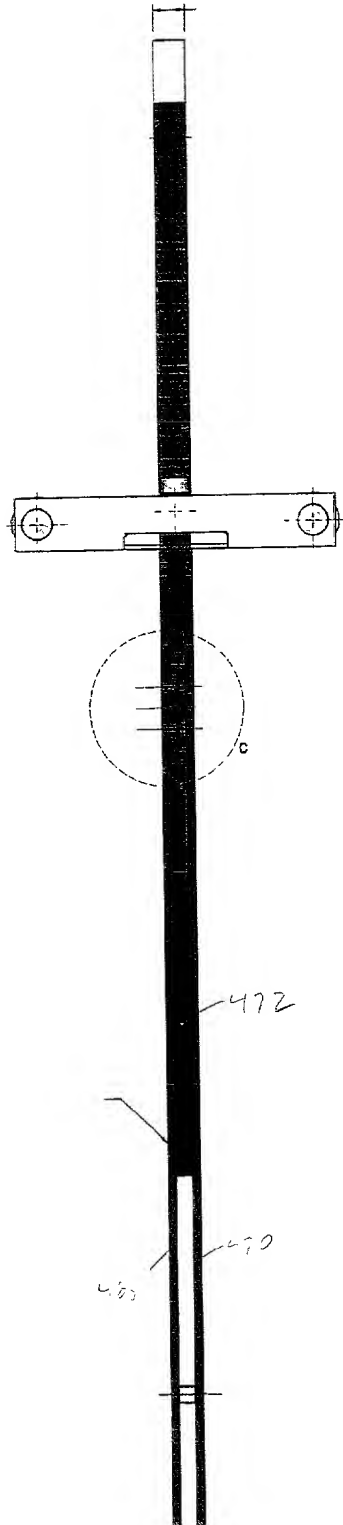


FIG. 15C



SECTION 8-8

FIG. 15D

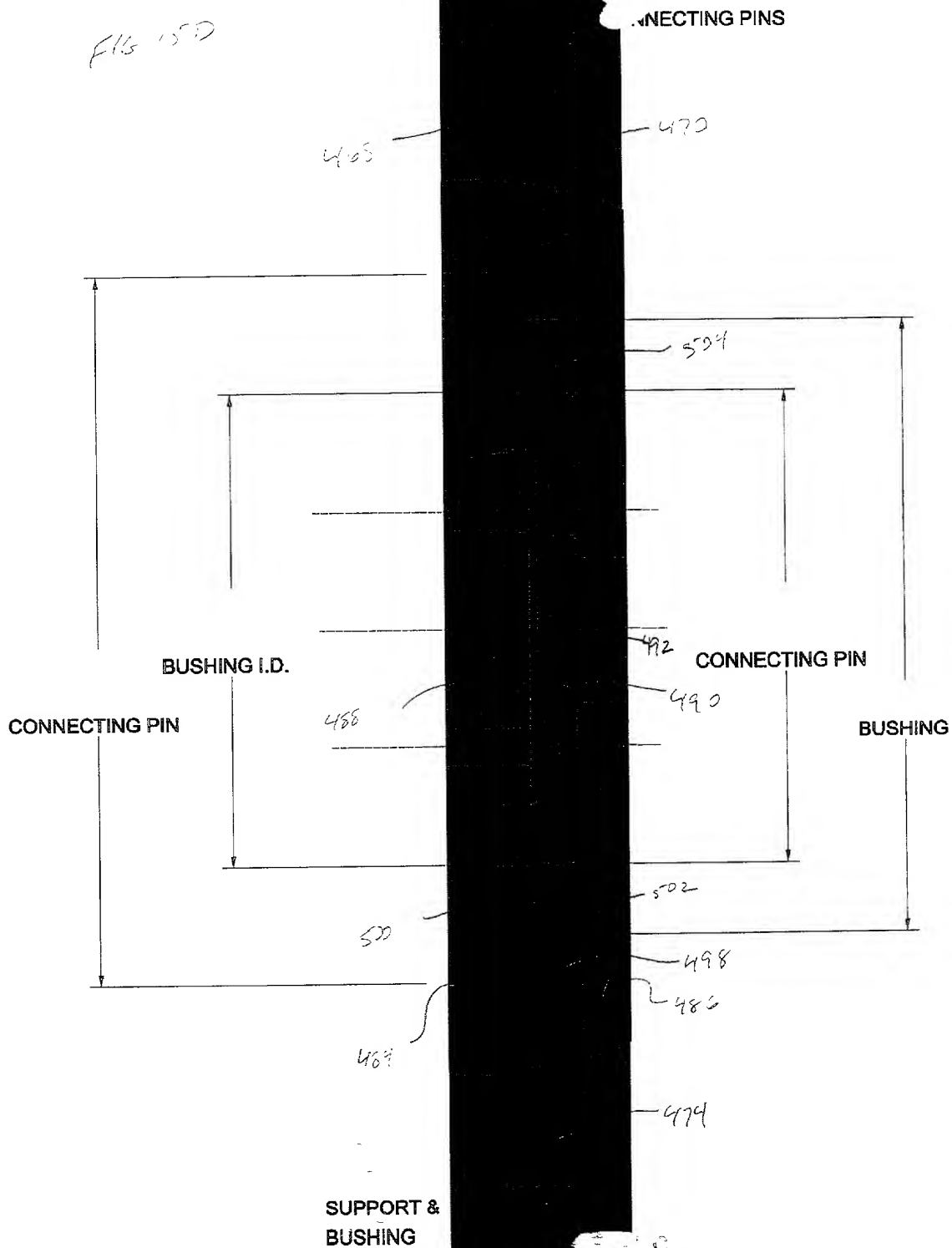
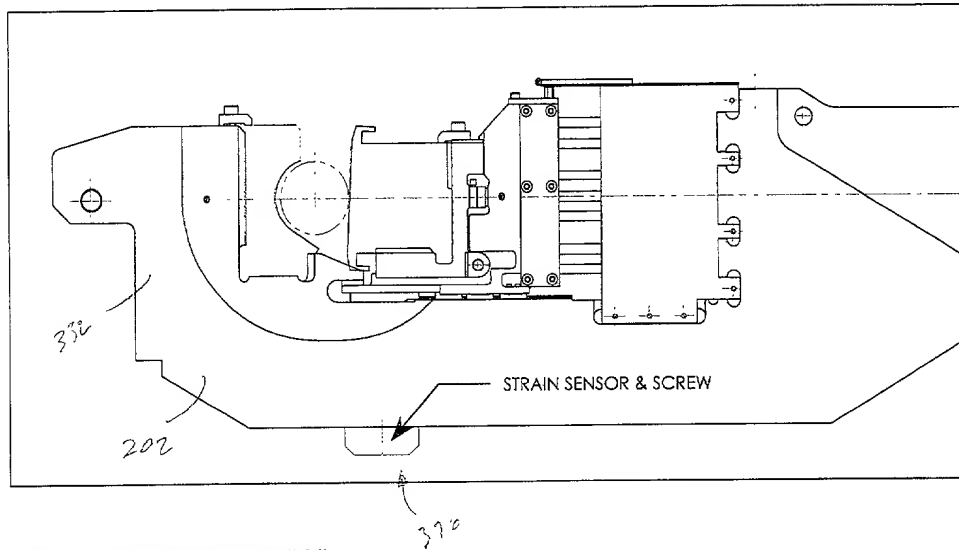


FIG 16A

STRAIN SENSOR DESIGN "B"



STRAIN SENSOR DESIGN "C"

FIG 16C

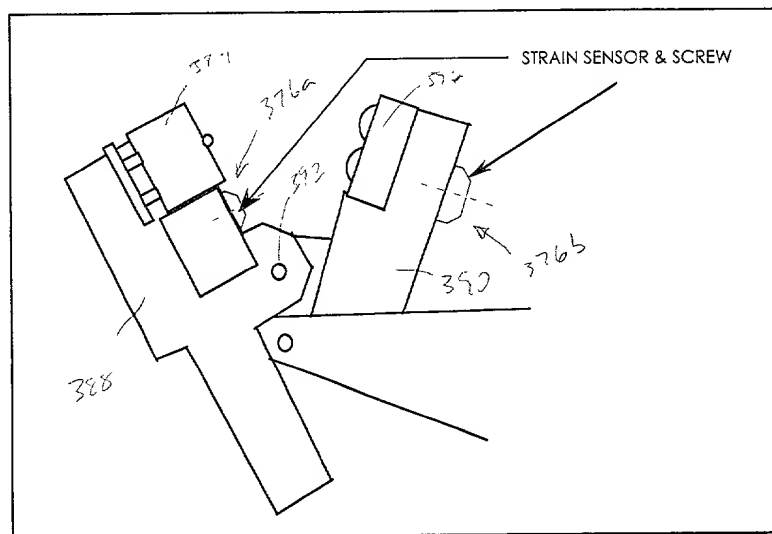
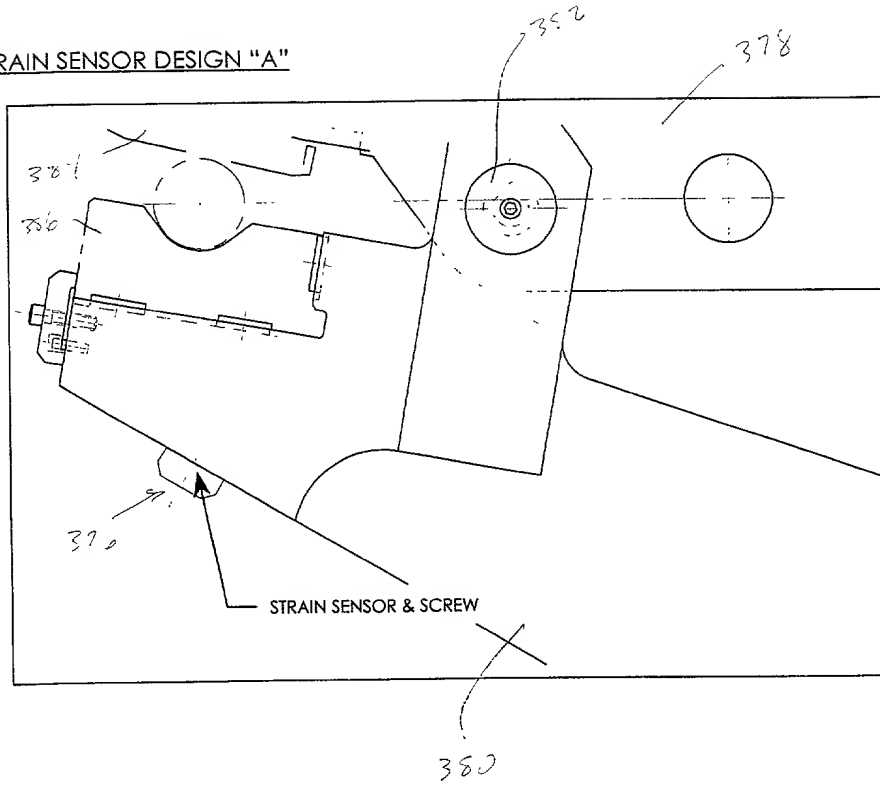


Fig 10B

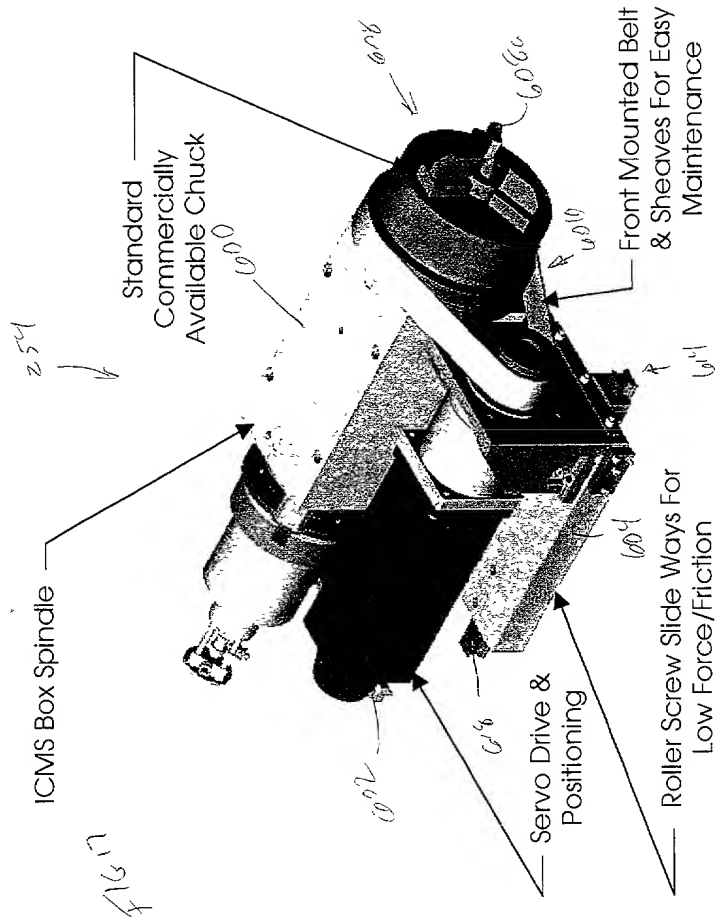
STRAIN SENSOR DESIGN "A"





INGERSOLL CM SYSTEMS

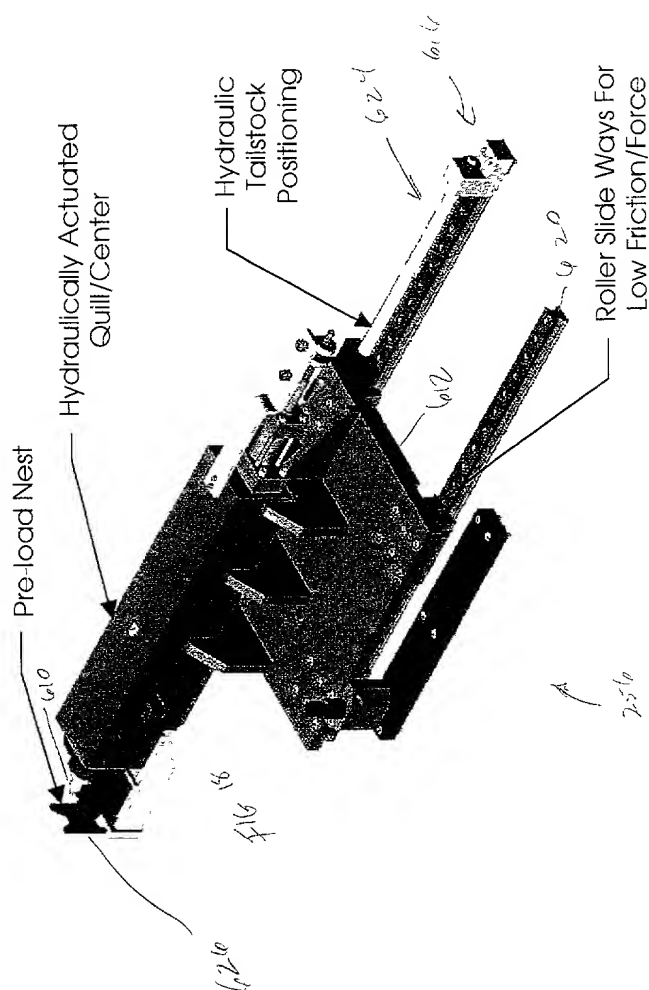
New Machine Design.



Headstock Assembly



New Machine Design.



Tailstock Assembly





INGERSOLL CM SYSTEMS

Machine Sequence

- Load Part



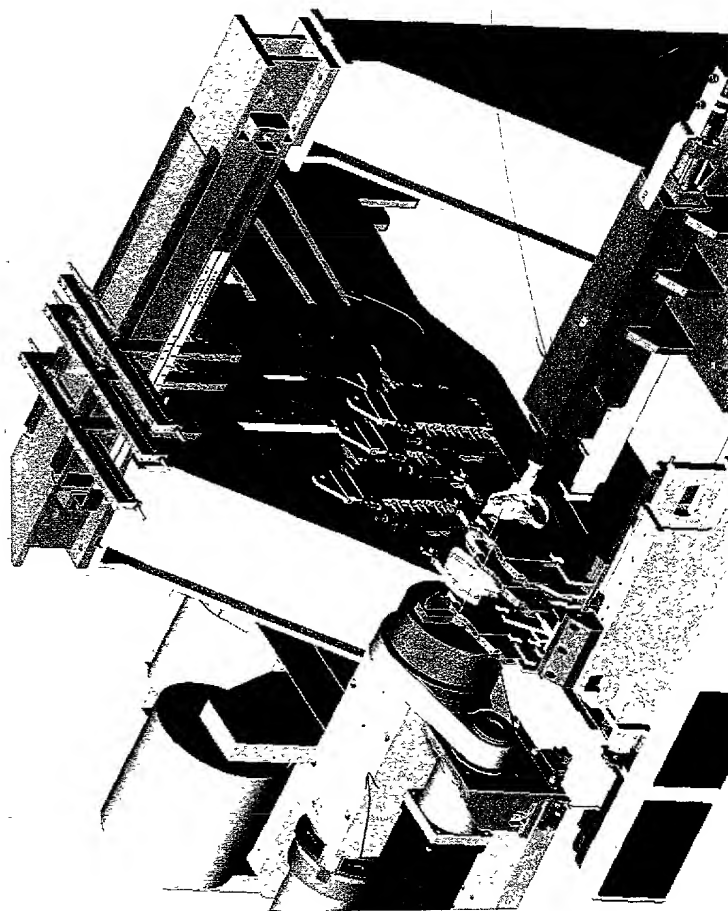


INGERSOLL CM SYSTEMS

Machine Sequence

- Advance Headstock & Tailstock
- Raise Arms
- Pivot Arms

FIG 193

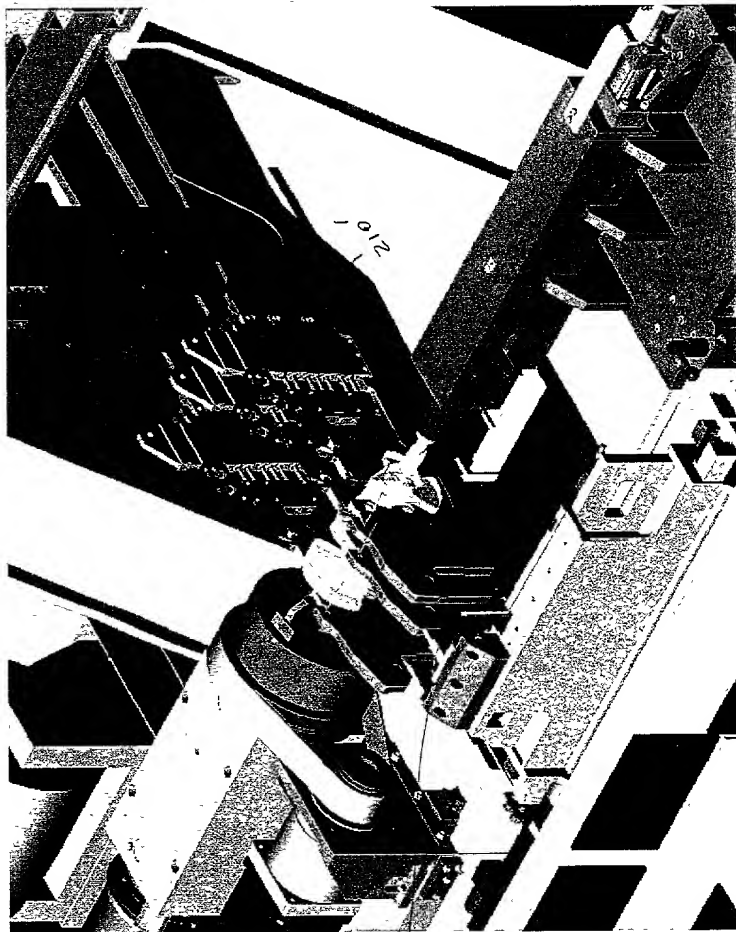




INGERSOLL CM SYSTEMS

Machine Sequence

- Close Tools & Chuck
- Lower Arm Lift Mechanism
- Roll Part



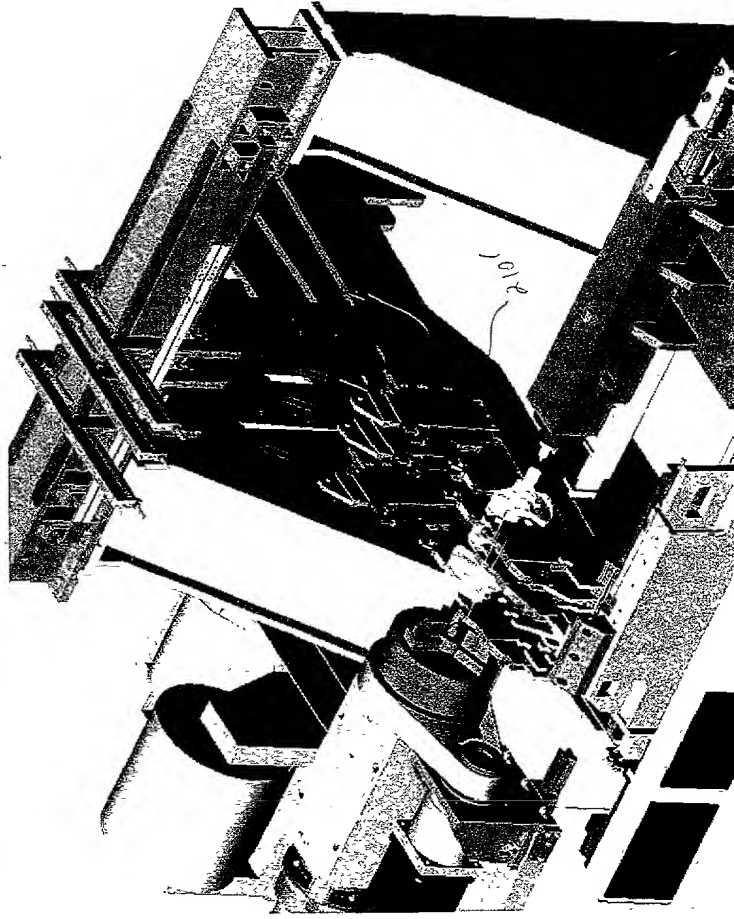


INGERSOLL CM SYSTEMS

Machine Sequence

- Raise Tool Arm Mechanism & Open Tools
- Open Chuck
- Retract Headstock & Tailstock

FIG 10





Machine Sequence

- Lower Tool Arm Lift Mechanism
- Pivot & Lower Tool Arms
- Unload Part





Machine Setup

- Tool Arm Adjustment Position

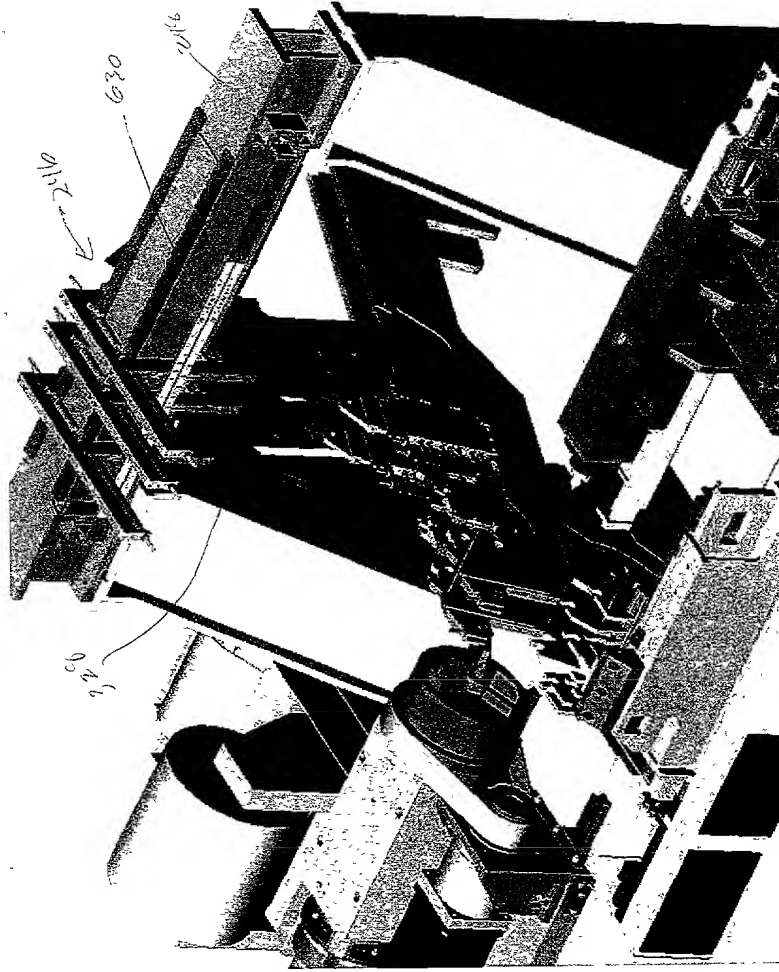


FIG. 280660

